

Ultra-Short Reach Optical Interconnect Market Size Worth \$4.09 Billion by 2029 - Report by The Business Research Company

The Business Research Company's Ultra-Short Reach Optical Interconnect Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034

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/EINPresswire.com/ -- "How Much Is The [Ultra-Short Reach Optical Interconnect Market](#) Worth?"

The Business
Research Company

Ultra-Short Reach Optical Interconnect Global Market Report 2025

The market size for ultra-short reach optical interconnect has witnessed swift expansion in the past years. It is projected to increase from \$1.73 billion in 2024 to \$2.06 billion in 2025, with an impressive compound annual growth rate (CAGR) of 19.2%. The growth during the historical period can be attributed to the escalating requirement for high-speed data transmission in data

centers, expansion in the usage of cloud computing services, the increasing application of artificial intelligence and machine learning tasks, the significant increase in traffic from video streaming and content delivery networks, and the rising demand for efficient energy solutions in data communication.

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It will grow to \$4.10 billion in 2029 at a compound annual growth rate (CAGR) of 18.8%.”

*The Business Research
Company*

Expectations are soaring for the ultra-short reach optical interconnect market, as projections show an accelerated

growth over the next few years. The market is predicted to surge to \$4.10 billion by 2029, boasting a compound annual growth rate (CAGR) of 18.8%. This sizable growth in the forecast period can be tied to the ongoing shift towards future artificial intelligence data centers, heightened adoption of co-packaged optics, and the increasing use of on-board optical solutions. The proliferation of ultra-low latency connectivity in edge computing, a broader inclusion of 5G and beyond-5G network infrastructure, and intensified focus on minimizing power usage and thermal dissipation are other influential factors. The forecast period is expected to witness noticeable trends such as the creation of low-power optical modules, incorporation of optical and electronic packaging, innovative optical modulation format shifts, assimilation of high-

density interconnect structures, and the evolution of chip-to-chip optical connections.

Download a free sample of the ultra-short reach optical interconnect market report:

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What Are The Factors Driving The Ultra-Short Reach Optical Interconnect Market?

The growth of the ultra-short reach optical interconnect market is anticipated to be fuelled by the increasing high-bandwidth connectivity. Put simply, high-bandwidth connectivity is a communication channel or network capable of ferrying vast amounts of data at extreme high rates, allowing for efficient and seamless information transfer between devices or systems. This surge in high-bandwidth connectivity is attributed to the burgeoning adoption of cloud computing which necessitates swifter and more dependable data transmission to accommodate large-scale data storage, prompt processing, and unhindered access to cloud-based applications. The ultra-short reach optical interconnect augments high-bandwidth connectivity by facilitating faster, energy-conserving, and low-latency data transmission between chips and gadgets within data centers and high-performance computing systems. For instance, data from the UK Parliament's House of Commons Library revealed that as of January 2024, 78% of UK premises were connected to gigabit-capable broadband, an increase from 72% in January 2023 and 64% in January 2022. Thus, the burgeoning high-bandwidth connectivity is propelling the ultra-short reach optical interconnect market.

Who Are The Major Players In The Ultra-Short Reach Optical Interconnect Market?

Major players in the Ultra-Short Reach Optical Interconnect Global Market Report 2025 include:

- Cisco Systems Inc.
- Intel Corporation
- Broadcom Inc.
- Mitsubishi Electric Corporation
- Sumitomo Electric Industries Ltd.
- NVIDIA Corporation
- Fujitsu Limited
- NEC Corporation
- Corning Incorporated
- Amphenol Corporation

What Are The Upcoming Trends Of Ultra-Short Reach Optical Interconnect Market In The Globe?

Leading corporations in the ultra-short reach optical interconnect market are prioritizing the creation of groundbreaking solutions like high-density, low-power optical interconnect technologies to improve the efficacy of data transmission in AI and data center infrastructures. These high-density, low-power optical interconnect technologies represent state-of-the-art data conveyance systems that offer swift, power-saving communication among densely arranged computing components in AI and data center settings. For instance, in October 2025, Semtech Limited, an American technology firm, introduced 1.6T multimode optical chipsets customized for data center AI infrastructure. This introduction encompassed the testing of significant

physical medium reliant components such as the FiberEdge GN1878 200G-per-channel vertical-cavity surface-emitting laser (VCSEL) driver and the GN1836 200G-per-channel transimpedance amplifier (TIA). These advanced elements operate ultra-short-reach optical interconnects capable of providing up to 1.6 terabits per second of total bandwidth, which meet the growing data conveyance requirements of AI and machine learning tasks. The multimode design of the solution optimizes power efficiency, minimizes cost per bit, and is favorable for high-density AI cluster settings. This progress bolsters Semtech's supremacy in optical connectivity and paves the way for potential scalability toward 3.2T solutions in future data centers.

Which Segment Accounted For The Largest [Ultra-Short Reach Optical Interconnect Market Share](#)?

The ultra-short reach optical interconnect market covered in this report is segmented –

- 1) By Product: Board-To-Board Interconnects, Rack-To-Rack Interconnects
- 2) By Technology: Vertical-Cavity Surface-Emitting Laser-Based Interconnects (VCSEL), Silicon Photonics (SiPh), Micro Light-Emitting Diode Based Links (μ -LED) Based Links
- 3) By Data Rate: Less Than 25 Gigabits Per Second (GBPS), 25 - 50 Gigabits Per Second (GBPS), 50 - 100 Gigabits Per Second (GBPS), More Than 100 Gigabits Per Second (GBPS)
- 4) By Distance: Less Than 1 Meter, 1 - 5 Meter, More Than 5 Meter

Subsegments:

- 1) By Board-To-Board Interconnects: Embedded Optical Modules, Optical Engine Connectors, Silicon Photonics Interposers, Optical Waveguide Assemblies, Fiber Array Interfaces
- 2) By Rack-To-Rack Interconnects: Optical Transceiver Modules, Active Optical Cables, Co-Packaged Optics, Pluggable Optical Modules, High-Density Fiber Connectors

View the full ultra-short reach optical interconnect market report:

<https://www.thebusinessresearchcompany.com/report/ultra-short-reach-optical-interconnect-global-market-report>

What Are The Regional Trends In The Ultra-Short Reach Optical Interconnect Market?

In 2024, North America held the top position in the global market for ultra-short reach optical interconnect. However, the fastest anticipated growth is predicted to be in the Asia-Pacific region during the forecast period. The market report includes all the following regions: Asia-Pacific, Western Europe, Eastern Europe, North America, South America, Middle East, and Africa.

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